

**DAHLGREN DIVISION**  
**NAVAL SURFACE WARFARE CENTER**  
PANAMA CITY, FLORIDA 32407-7001



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**CSS/TN-99/10**

**DESIGN GUIDE FOR INSTALLATION OF  
SELF-CONTAINED BREATHING APPARATUS (SCBA)  
AND SCBA CHARGING EQUIPMENT ABOARD U.S.  
NAVY SURFACE SHIPS AND SUBMARINES**

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**3.0 DETAILED INSTRUCTIONS****3.1 STOWAGE REQUIREMENTS FOR SCBAS AND SPARE AIR CYLINDERS****3.1.1 Locker Designs**

Like the OBAs and OBA canisters currently installed aboard surface ships and submarines, most of the SCBAs and SCBA spare air cylinders shall be stowed in metal lockers. Locker designs vary to accommodate different numbers of SCBAs and spare cylinders to be stowed. Refer to Figure 3-1 for a summary of locker designs. If the installation of a metal locker is not feasible due to configuration restrictions such as those that exist in some areas on DDG-51 Class ships, some SCBAs and spare cylinders may be stowed on bulkhead-mounted brackets with fabric covers (locker MDL-11 or MDL-12).

**3.1.1.1 Construction.** The stowage lockers for SCBAs and spare cylinders shall be constructed in accordance with the requirements of the locker drawings listed in Table 2-1. The locker frame shall be bolted to a bulkhead or other appropriate support. The foundations shall also be fabricated in accordance with the requirements of the locker drawings listed in Table 2-1. The specified lockers meet critical requirements for shock. Deviation from the specified locker designs is not permitted.

**3.1.1.2 Paint.** The stowage lockers for SCBAs and spare cylinders shall be electrostatic powder coat painted in accordance with the requirements listed in Appendix B.

**3.1.1.3 Shock Requirements.** The stowage lockers meet Grade B shock requirements of MIL-S-901D for light-weight or medium-weight equipment, depending on the size of the locker. The MDL-2 locker meets Grade A shock requirements.

**3.1.1.4 Securing Brackets.** The brackets, spring clips, and footplates used for retaining the SCBAs and cylinders in the stowage lockers shall be assembled and installed in accordance with the instructions provided in Appendix C. Each bracket used for vertical stowage of an SCBA or cylinder shall be labeled using reflective tape to identify the bracket's intended contents; i.e., 30-MIN SCBA, 45-MIN SCBA, 30-MIN SPARE, or 45-MIN SPARE.

**3.1.1.5 Labeling.** The stowage lockers for SCBAs and cylinders shall be labeled on the outside using photoluminescent markings to identify the locker's intended contents (i.e., SCBA or SCBA CYLINDERS).

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**SCBA LOCKER PAINTING REQUIREMENTS**  
(For SCBA Lockers Installed on Surface Ships)

1. These painting requirements apply to SCBA Lockers and SCBA Stowage Bag Units listed on NAVSEA drawing 664-7246000.
2. Lockers shall be electrostatic powder coated using a commercial grade powder suitable for indoor use with no exposure to sunlight, but with exposure to moisture, salt, and heavy traffic in passageways. A polyester powder is suitable for this type of application.
3. The powder color shall be high gloss red, FED-STD-595B color 11350. For lockers installed in light traps, the color shall be a flat (no gloss) black, such as FED-STD-595B color 37038.
4. All exterior and interior surfaces of the locker shall be coated. Exterior surfaces to be coated shall include the front door panels, side panels, back panel, and top panel. Interior surfaces to be coated shall include the door backs and edges, side panels, back panel, top panel, bottom panel, and frame. Door hinges and the removable bottom panel, if present, need not be coated, but may be coated if desired. For mass stowage lockers (MDL-8, 9, 10, 10, 8N, 9N, and 10N), the interior of the compartment assembly (egg crate) need not be coated.
5. Door handles, the door latch mechanism, and door locking bars shall not be coated; i.e., these shall be installed after coating, or shall be masked and not coated. Walkway brackets and rubber door bumpers shall not be coated. For mass stowage lockers, the protective edging shall be installed after coating. Also for mass stowage lockers, the spring clips and footplates shall not be coated, but may be installed and masked before powder coating, if desired.
6. If necessary, weep holes may be drilled in the door bottom edge and in the locker bottom panel and frame to allow excess powder to drain out. Also if necessary, holes may be drilled in the locker top or back panel and frame to permit the locker to be suspended during powder coating.
7. Base foundation and bulkhead foundation angles (which are made of steel) shall not be powder coated, but shall instead be coated with a wet sprayed primer. The preferred primer color is green. At installation, these items will be welded to the deck or bulkhead and then painted to match the surrounding area.
8. For touch-up of lockers scratched during shipping and installation, use enamel-based matching paint.

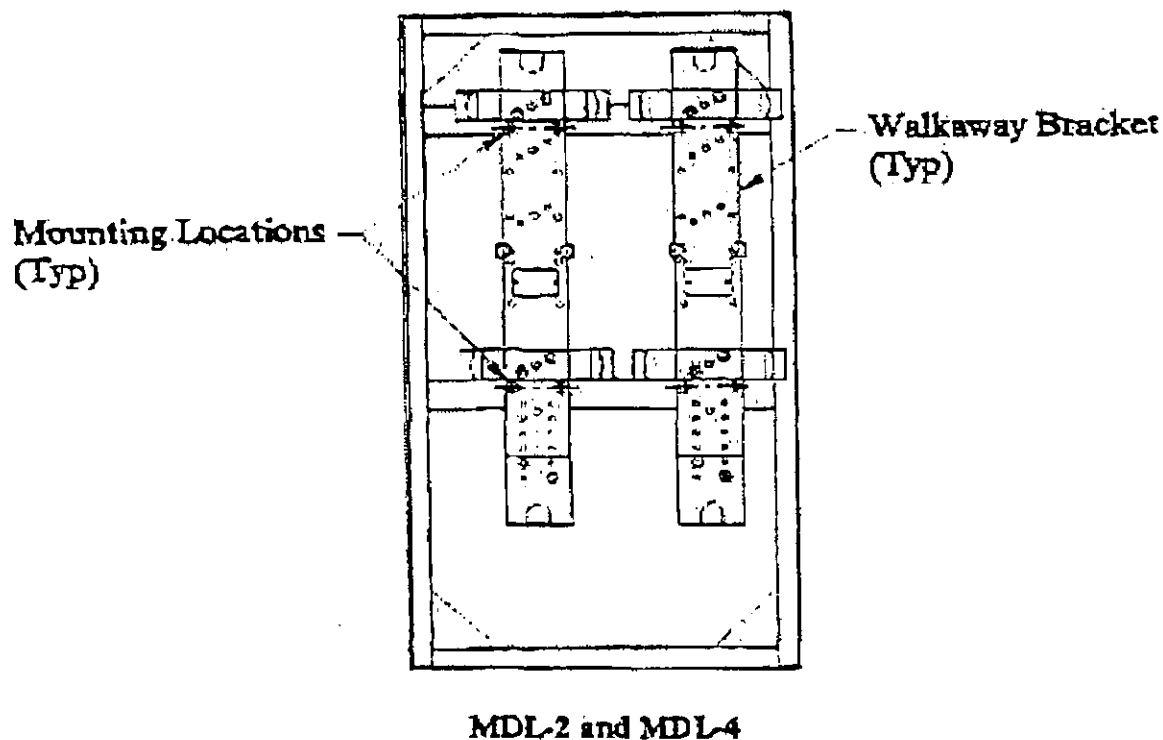
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**SCBA LOCKERS MDL-2 AND MDL-4**

1. Assemble the walkaway brackets as shown in Detail A on Figure C-1.
2. Install the walkaway brackets in the locker either before or after installing the locker aboard ship (see Figure C-3). Install the brackets using the stainless steel mounting hardware (listed in Table C-3) in the bracket holes shown below. Insert the hex bolts through the angles from behind. Install one flat washer with each bolt between the angle and the walkaway bracket backplate. Install the second flat washer and the nut against the front of the backplate.

**TABLE C-3. SCBA LOCKERS MDL-2 AND MDL-4 MOUNTING HARDWARE**

Quantity	Description	Material
8	Bolt, hex head, 1/4"-20 UNC-2A x 3/4" long	CRES
8	Nut, hex self lock, 1/4"-20UNC-2B	CRES
16	Flat washer for 1/4" bolt	CRES

**MDL-2 and MDL-4****Figure C-3. SCBA Lockers MDL-2 and MDL-4**